

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/586,109
Source: FWP
Date Processed by STIC: 7/26/06

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/586,109

CRF Edit Date: 7/26/06
Edited by: [Signature]

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

J Deleted: J invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

___ Moved responses to same line as heading/numeric identifier, specifically:

___ Other:



IFWP

RAW SEQUENCE LISTING

DATE: 07/26/2006

PATENT APPLICATION: US/10/586,109

TIME: 20:15:40

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\07262006\J586109.raw

```

3 <110> APPLICANT: Allain, Eric
4      Wenger, Kevin S
5      Bisgard-Frantzen, Henrik
7 <120> TITLE OF INVENTION: Process for producing a fermentation product
9 <130> FILE REFERENCE: 10674.204-US
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/586,109
C--> 11 <141> CURRENT FILING DATE: 2006-07-14
11 <160> NUMBER OF SEQ ID NOS: 41
13 <170> SOFTWARE: PatentIn version 3.3
15 <210> SEQ ID NO: 1
16 <211> LENGTH: 2427
17 <212> TYPE: DNA
18 <213> ORGANISM: Athelia rolfsii
21 <220> FEATURE:
22 <221> NAME/KEY: sig_peptide
23 <222> LOCATION: (1)..(54)
25 <220> FEATURE:
26 <221> NAME/KEY: CDS
27 <222> LOCATION: (1)..(208)
29 <220> FEATURE:
30 <221> NAME/KEY: mat_peptide
31 <222> LOCATION: (55)..(2427)
33 <220> FEATURE:
34 <221> NAME/KEY: Intron
35 <222> LOCATION: (209)..(283)
37 <220> FEATURE:
38 <221> NAME/KEY: CDS
39 <222> LOCATION: (284)..(354)
41 <220> FEATURE:
42 <221> NAME/KEY: Intron
43 <222> LOCATION: (355)..(410)
45 <220> FEATURE:
46 <221> NAME/KEY: misc_feature
47 <222> LOCATION: (367)..(367)
48 <223> OTHER INFORMATION: n is a, c, g or t.
50 <220> FEATURE:
51 <221> NAME/KEY: misc_feature
52 <222> LOCATION: (392)..(392)
53 <223> OTHER INFORMATION: n is a, c, g or t
55 <220> FEATURE:
56 <221> NAME/KEY: CDS
57 <222> LOCATION: (411)..(557)
59 <220> FEATURE:

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Input Set : A:\PTO.AMC.txt

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125 Val Ala Lys Asn Gly Val Leu Cys Asn Ile Gly Ser Gln Gly Cys Met
126 15                20                25                30
128 tct gag ggt gcc tat agc ggt att gtg atc gca tct ccc tct aaa act      192
129 Ser Glu Gly Ala Tyr Ser Gly Ile Val Ile Ala Ser Pro Ser Lys Thr
130                35                40                45
132 agc cct gac tat ctg t gtgagtatta ttgttaaagt agcctcactg atagtacatt    248
133 Ser Pro Asp Tyr Leu
134                50
136 ttctgagttc tgttacaacc ctggtattat aatag at  acc tgg act cgc gac      300
137                Tyr Thr Trp Thr Arg Asp
138                55
140 tcg tcg ctc gtc ttc aag atg tta att gac caa tac aca aat ggc ctg      348
141 Ser Ser Leu Val Phe Lys Met Leu Ile Asp Gln Tyr Thr Asn Gly Leu
142                60                65                70
W--> 144 gat acg gtatgtggca tcngcggtcc ggctcgctc aaagatgnaa aattgatgtt    404
145 Asp Thr
146                75
148 tcttag aca ctg cgc act ctc att gac gag ttt gtc tct gcg gaa gcc      452
149                Thr Leu Arg Thr Leu Ile Asp Glu Phe Val Ser Ala Glu Ala
150                80                85
152 acc att caa caa acc agt aac cca tct ggt acc gtc tct acc ggt ggt      500
153 Thr Ile Gln Gln Thr Ser Asn Pro Ser Gly Thr Val Ser Thr Gly Gly
154 90                95                100                105
156 ctc ggc gaa ccc aaa ttc aat atc gac gag acg gca ttt acg ggc gca      548
157 Leu Gly Glu Pro Lys Phe Asn Ile Asp Glu Thr Ala Phe Thr Gly Ala
158                110                115                120
160 tgg ggt cgt gtaagctacc aatacacaat caaatcgac catctgtatt      597
161 Trp Gly Arg
164 tactatctat aatttctag ccc caa cgt gat ggt ccc gcc ctc cgt gca acc      649
165                Pro Gln Arg Asp Gly Pro Ala Leu Arg Ala Thr
166                125                130                135
168 gca atc atg acc tat gcg acg tat ctg tac aac aat ggc aac act tcc      697
169 Ala Ile Met Thr Tyr Ala Thr Tyr Leu Tyr Asn Asn Gly Asn Thr Ser
170                140                145                150
172 tac gtg acc aac acc ctt tgg cct atc atc aag ctc gac ctt gac tat      745
173 Tyr Val Thr Asn Thr Leu Trp Pro Ile Ile Lys Leu Asp Leu Asp Tyr
174                155                160                165
176 gtc aac tcg gac tgg aac cag acc a gtaagcgaat ttctaggggg      790
177 Val Asn Ser Asp Trp Asn Gln Thr
178                170                175
180 acttatctaa aacagcatat tcaaccagta aatag cg  ttt gac ctc tgg gaa      842
181                Thr Phe Asp Leu Trp Glu
182                180
184 gaa gtt gac tcg tct tct ttc ttt acg act gcc gtt cag cac cgt gct      890
185 Glu Val Asp Ser Ser Ser Phe Phe Thr Thr Ala Val Gln His Arg Ala
186                185                190                195
188 ctt gtt cag ggc gca gcc ttt gct acc ctc atc ggc caa act tcg tct      938
189 Leu Val Gln Gly Ala Ala Phe Ala Thr Leu Ile Gly Gln Thr Ser Ser
190                200                205                210

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```

192 gct tcg act tac tcc gcc acg gcc cct agc att ctc tgc ttc ttg cag      986
193 Ala Ser Thr Tyr Ser Ala Thr Ala Pro Ser Ile Leu Cys Phe Leu Gln
194      215      220      225
196 gtgagataaa aatcttttcta tgtaattggg ttttcccctc aaattgaaat tgacatatatt 1046
198 gcgatccaat ag tct tac tgg aac acc aac gga tac tgg acg gcc aac act 1097
199      Ser Tyr Trp Asn Thr Asn Gly Tyr Trp Thr Ala Asn Thr
200      230      235      240
202 ggt ggc gga cgt tcc ggc aag gac gcc aac acc ata ctc gct tct atc      1145
203 Gly Gly Gly Arg Ser Gly Lys Asp Ala Asn Thr Ile Leu Ala Ser Ile
204      245      250      255
206 cac aca ttt gac gcc agc gcc ggc tgc tct gct gcc acg tct caa cca      1193
207 His Thr Phe Asp Ala Ser Ala Gly Cys Ser Ala Ala Thr Ser Gln Pro
208      260      265      270
210 tgc tct gac gta gca ttg gcc aac ctg aag gta tac gtt gac tct ttc      1241
211 Cys Ser Asp Val Ala Leu Ala Asn Leu Lys Val Tyr Val Asp Ser Phe
212 275      280      285      290
214 cgt agt att tat acg atc aac agc ggt att tcc tct acc tcg ggt gtt      1289
215 Arg Ser Ile Tyr Thr Ile Asn Ser Gly Ile Ser Ser Thr Ser Gly Val
216      295      300      305
218 gct act ggt cgc tac ccc gaa gat tcg tat tac aat ggc aac      1331
219 Ala Thr Gly Arg Tyr Pro Glu Asp Ser Tyr Tyr Asn Gly Asn
220      310      315      320
222 gtacgtatatt atctaatttt tccaagacag tcaaagttaa tgttcacatcg ccccttttta 1391
224 cctgtacatt caaaatag ccc tgg tac ctc tgc aca ctc gcc gtc gcc gag 1442
225      Pro Trp Tyr Leu Cys Thr Leu Ala Val Ala Glu
226      325      330
228 cag ctc tat gat gct ctc atc gta tgg aag gct gcc ggg gag ctc aac      1490
229 Gln Leu Tyr Asp Ala Leu Ile Val Trp Lys Ala Ala Gly Glu Leu Asn
230      335      340      345
232 gtc acc tcc gtc tcg ctc gcg ttc ttc cag caa ttc gac tcg agc atc      1538
233 Val Thr Ser Val Ser Leu Ala Phe Phe Gln Gln Phe Asp Ser Ser Ile
234      350      355      360
236 acc gcc ggc act tac gcc tcc tcg tcg agc gta tac act tcg ctc atc      1586
237 Thr Ala Gly Thr Tyr Ala Ser Ser Ser Ser Val Tyr Thr Ser Leu Ile
238      365      370      375
240 tct gac atc cag gcg ttc gca gac gag ttt gtt gac att gtt gcc aag      1634
241 Ser Asp Ile Gln Ala Phe Ala Asp Glu Phe Val Asp Ile Val Ala Lys
242 380      385      390      395
244 tac acg cct tcg tct ggc ttc ttg tct gag cag tat gat aag tcc acg      1682
245 Tyr Thr Pro Ser Ser Gly Phe Leu Ser Glu Gln Tyr Asp Lys Ser Thr
246      400      405      410
248 ggt gct cag gat tcg gct gct aac ttg act t gtaagtcac tatttggtca 1733
249 Gly Ala Gln Asp Ser Ala Ala Asn Leu Thr
250      415      420
252 ttctatttct tttcaaaaaa aaaagtgatg ctaatgattt ttggcggaaa ccag gg      1789
253      Trp
256 tcc tat gct gct gct atc acc gct tac caa gcc cgc aat ggc ttc aca      1837
257 Ser Tyr Ala Ala Ala Ile Thr Ala Tyr Gln Ala Arg Asn Gly Phe Thr
258      425      430      435

```

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Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\07262006\J586109.raw

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60 <221> NAME/KEY: Intron
61 <222> LOCATION: (558) .. (616)
63 <220> FEATURE:
64 <221> NAME/KEY: CDS
65 <222> LOCATION: (617) .. (770)
67 <220> FEATURE:
68 <221> NAME/KEY: Intron
69 <222> LOCATION: (771) .. (825)
71 <220> FEATURE:
72 <221> NAME/KEY: CDS
73 <222> LOCATION: (826) .. (986)
75 <220> FEATURE:
76 <221> NAME/KEY: Intron
77 <222> LOCATION: (987) .. (1058)
79 <220> FEATURE:
80 <221> NAME/KEY: CDS
81 <222> LOCATION: (1059) .. (1331)
83 <220> FEATURE:
84 <221> NAME/KEY: Intron
85 <222> LOCATION: (1332) .. (1409)
87 <220> FEATURE:
88 <221> NAME/KEY: CDS
89 <222> LOCATION: (1410) .. (1713)
91 <220> FEATURE:
92 <221> NAME/KEY: Intron
93 <222> LOCATION: (1714) .. (1787)
95 <220> FEATURE:
96 <221> NAME/KEY: CDS
97 <222> LOCATION: (1788) .. (1958)
99 <220> FEATURE:
100 <221> NAME/KEY: Intron
101 <222> LOCATION: (1959) .. (2020)
103 <220> FEATURE:
104 <221> NAME/KEY: CDS
105 <222> LOCATION: (2021) .. (2116)
107 <220> FEATURE:
108 <221> NAME/KEY: Intron
109 <222> LOCATION: (2117) .. (2173)
111 <220> FEATURE:
112 <221> NAME/KEY: CDS
113 <222> LOCATION: (2174) .. (2325)
115 <400> SEQUENCE: 1
116 atg ttt cgt tca ctc ctg gcc ttg gct gcg tgt gca gtc gcc tct gta      48
117 Met Phe Arg Ser Leu Leu Ala Leu Ala Ala Cys Ala Val Ala Ser Val
118          -15                      -10                      -5
120 tct gca cag tct gcg tct gcg aca gca tat ctt acc aag gaa tct gca      96
121 Ser Ala Gln Ser Ala Ser Ala Thr Ala Tyr Leu Thr Lys Glu Ser Ala
122  -1  1                      5                      10
124 gtt gcc aag aat ggc gta ctt tgc aac att ggt agc cag gga tgc atg     144

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Output Set: N:\CRF4\07262006\J586109.raw

```

260 ggt gct tcg tgg ggt gct aag gga gtt tct acc tcc tgc tcg act ggt      1885
261 Gly Ala Ser Trp Gly Ala Lys Gly Val Ser Thr Ser Cys Ser Thr Gly
262      440      445      450
264 gct aca agc ccg ggt ggc tcc tcg ggt agt gtc gag gtc act ttc gac      1933
265 Ala Thr Ser Pro Gly Gly Ser Ser Gly Ser Val Glu Val Thr Phe Asp
266 455      460      465      470
268 gtt tac gct acc aca gta tat ggc c gtaagcactt gactagcttc      1978
269 Val Tyr Ala Thr Thr Val Tyr Gly
270      475
272 aaaccatact tcatcatgct gataaaca aaaatgaaac ag ag aac atc tat      2031
W--> 273      Gln Asn Ile Tyr
274      480
276 atc acc ggt gat gtg agt gag ctc ggc aac tgg aca ccc gcc aat ggt      2079
277 Ile Thr Gly Asp Val Ser Glu Leu Gly Asn Trp Thr Pro Ala Asn Gly
278      485      490      495
280 gtt gca ctc tct tct gct aac tac ccc acc tgg agt g gtaagttgac      2126
281 Val Ala Leu Ser Ser Ala Asn Tyr Pro Thr Trp Ser
282      500      505      510
284 ccttaccagt atcttgacag acattgatat tgacttccgc aatacag cc acg atc      2181
285      Ala Thr Ile
288 gct ctc ccc gct gac acg aca atc cag tac aag tat gtc aac att gac      2229
289 Ala Leu Pro Ala Asp Thr Thr Ile Gln Tyr Lys Tyr Val Asn Ile Asp
290      515      520      525
292 ggc agc acc gtc atc tgg gag gat gct atc agc aat cgc gag atc acg      2277
293 Gly Ser Thr Val Ile Trp Glu Asp Ala Ile Ser Asn Arg Glu Ile Thr
294 530      535      540      545
296 acg ccc gcc agc ggc aca tac acc gaa aaa gac act tgg gat gaa tct      2325
297 Thr Pro Ala Ser Gly Thr Tyr Thr Glu Lys Asp Thr Trp Asp Glu Ser
298      550      555      560
300 taaactgctg aacttgaacg gcttgcaaaa gcgaatggtg tagaaaataa acgaagattt      2385
302 tgattgcttt gttttgtttc tcttcctatc ttgtttctct ag      2427
305 <210> SEQ ID NO: 2
306 <211> LENGTH: 579
307 <212> TYPE: PRT
308 <213> ORGANISM: Athelia rolfsii
310 <400> SEQUENCE: 2
312 Met Phe Arg Ser Leu Leu Ala Leu Ala Ala Cys Ala Val Ala Ser Val
313      -15      -10      -5
316 Ser Ala Gln Ser Ala Ser Ala Thr Ala Tyr Leu Thr Lys Glu Ser Ala
317      -1 1      5      10
320 Val Ala Lys Asn Gly Val Leu Cys Asn Ile Gly Ser Gln Gly Cys Met
321 15      20      25      30
324 Ser Glu Gly Ala Tyr Ser Gly Ile Val Ile Ala Ser Pro Ser Lys Thr
325      35      40      45
328 Ser Pro Asp Tyr Leu Tyr Thr Trp Thr Arg Asp Ser Ser Leu Val Phe
329      50      55      60
332 Lys Met Leu Ile Asp Gln Tyr Thr Asn Gly Leu Asp Thr Thr Leu Arg
333      65      70      75
336 Thr Leu Ile Asp Glu Phe Val Ser Ala Glu Ala Thr Ile Gln Gln Thr

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/26/2006
PATENT APPLICATION: US/10/586,109 TIME: 20:15:41

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\07262006\J586109.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 367,392

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:11,32,33,34,35,36,37,38,39,40,41

VERIFICATION SUMMARY

PATENT APPLICATION: **US/10/586,109**

DATE: 07/26/2006

TIME: 20:15:41

Input Set : **A:\PTO.AMC.txt**

Output Set: **N:\CRF4\07262006\J586109.raw**

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:348

L:273 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 1

**Raw Sequence Listing before editing
(for reference only)**



IFWO

RAW SEQUENCE LISTING

DATE: 07/26/2006

PATENT APPLICATION: US/10/586,109

TIME: 14:15:51

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\07262006\J586109.raw

3 <110> APPLICANT: Allain, Eric
 4 Wenger, Kevin S
 5 Bisgard-Frantzen, Henrik
 7 <120> TITLE OF INVENTION: Process for producing a fermentation product
 9 <130> FILE REFERENCE: 10674.204-US
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/586,109
 C--> 11 <141> CURRENT FILING DATE: 2006-07-14
 11 <160> NUMBER OF SEQ ID NOS: 41
 13 <170> SOFTWARE: PatentIn version 3.3

ERRORED SEQUENCES

3734 <210> SEQ ID NO: 41
 3735 <211> LENGTH: 588
 3736 <212> TYPE: PRT
 3737 <213> ORGANISM: Artificial
 3739 <220> FEATURE:
 3740 <223> OTHER INFORMATION: Synthetic Construct
 3742 <400> SEQUENCE: 41

3744	Ala	Thr	Pro	Ala	Asp	Trp	Arg	Ser	Gln	Ser	Ile	Tyr	Phe	Leu	Leu	Thr
3745	1			5					10					15		
3748	Asp	Arg	Phe	Ala	Arg	Thr	Asp	Gly	Ser	Thr	Thr	Ala	Thr	Cys	Asn	Thr
3749			20					25						30		
3752	Ala	Asp	Gln	Lys	Tyr	Cys	Gly	Gly	Thr	Trp	Gln	Gly	Ile	Ile	Asp	Lys
3753			35				40						45			
3756	Leu	Asp	Tyr	Ile	Gln	Gly	Met	Gly	Phe	Thr	Ala	Ile	Trp	Ile	Thr	Pro
3757		50				55				60						
3760	Val	Thr	Ala	Gln	Leu	Pro	Gln	Thr	Thr	Ala	Tyr	Gly	Asp	Ala	Tyr	His
3761	65				70					75					80	
3764	Gly	Tyr	Trp	Gln	Gln	Asp	Ile	Tyr	Ser	Leu	Asn	Glu	Asn	Tyr	Gly	Thr
3765				85					90					95		
3768	Ala	Asp	Asp	Leu	Lys	Ala	Leu	Ser	Ser	Ala	Leu	His	Glu	Arg	Gly	Met
3769			100					105					110			
3772	Tyr	Leu	Met	Val	Asp	Val	Val	Ala	Asn	His	Met	Gly	Tyr	Asp	Gly	Ala
3773			115					120					125			
3776	Gly	Ser	Ser	Val	Asp	Tyr	Ser	Val	Phe	Lys	Pro	Phe	Ser	Ser	Gln	Asp
3777		130					135					140				
3780	Tyr	Phe	His	Pro	Phe	Cys	Phe	Ile	Gln	Asn	Tyr	Glu	Asp	Gln	Thr	Gln
3781	145				150						155				160	
3784	Val	Glu	Asp	Cys	Trp	Leu	Gly	Asp	Asn	Thr	Val	Ser	Leu	Pro	Asp	Leu
3785				165					170						175	
3788	Asp	Thr	Thr	Lys	Asp	Val	Val	Lys	Asn	Glu	Trp	Tyr	Asp	Trp	Val	Gly

*Does Not Comply
Corrected Diskette Needed*

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/586,109

DATE: 07/26/2006

TIME: 14:15:51

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\07262006\J586109.raw

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3789          180          185          190
3792 Ser Leu Val Ser Asn Tyr Ser Ile Asp Gly Leu Arg Ile Asp Thr Val
3793          195          200          205
3796 Lys His Val Gln Lys Asp Phe Trp Pro Gly Tyr Asn Lys Ala Ala Gly
3797          210          215          220
3800 Val Tyr Cys Ile Gly Glu Val Leu Asp Gly Asp Pro Ala Tyr Thr Cys
3801 225          230          235          240
3804 Pro Tyr Gln Asn Val Met Asp Gly Val Leu Asn Tyr Pro Ile Tyr Tyr
3805          245          250          255
3808 Pro Leu Leu Asn Ala Phe Lys Ser Thr Ser Gly Ser Met Asp Asp Leu
3809          260          265          270
3812 Tyr Asn Met Ile Asn Thr Val Lys Ser Asp Cys Pro Asp Ser Thr Leu
3813          275          280          285
3816 Leu Gly Thr Phe Val Glu Asn His Asp Asn Pro Arg Phe Ala Ser Tyr
3817          290          295          300
3820 Thr Asn Asp Ile Ala Leu Ala Lys Asn Val Ala Ala Phe Ile Ile Leu
3821 305          310          315          320
3824 Asn Asp Gly Ile Pro Ile Ile Tyr Ala Gly Gln Glu Gln His Tyr Ala
3825          325          330          335
3828 Gly Gly Asn Asp Pro Ala Asn Arg Glu Ala Thr Trp Leu Ser Gly Tyr
3829          340          345          350
3832 Pro Thr Asp Ser Glu Leu Tyr Lys Leu Ile Ala Ser Ala Asn Ala Ile
3833          355          360          365
3836 Arg Asn Tyr Ala Ile Ser Lys Asp Thr Gly Phe Val Thr Tyr Lys Asn
3837          370          375          380
3840 Trp Pro Ile Tyr Lys Asp Asp Thr Thr Ile Ala Met Arg Lys Gly Thr
3841 385          390          395          400
3844 Asp Gly Ser Gln Ile Val Thr Ile Leu Ser Asn Lys Gly Ala Ser Gly
3845          405          410          415
3848 Asp Ser Tyr Thr Leu Ser Leu Ser Gly Ala Gly Tyr Thr Ala Gly Gln
3849          420          425          430
3852 Gln Leu Thr Glu Val Ile Gly Cys Thr Thr Val Thr Val Gly Ser Asp
3853          435          440          445
3856 Gly Asn Val Pro Val Pro Met Ala Gly Gly Leu Pro Arg Val Leu Tyr
3857          450          455          460
3860 Pro Thr Glu Lys Leu Ala Gly Ser Lys Ile Cys Ser Ser Ser Gly Arg
3861 465          470          475          480
3864 Gly Ala Thr Ser Pro Gly Gly Ser Ser Gly Ser Val Glu Val Thr Phe
3865          485          490          495
3868 Asp Val Tyr Ala Thr Thr Val Tyr Gly Gln Asn Ile Tyr Ile Thr Gly
3869          500          505          510
3872 Asp Val Ser Glu Leu Gly Asn Trp Thr Pro Ala Asn Gly Val Ala Leu
3873          515          520          525
3876 Ser Ser Ala Asn Tyr Pro Thr Trp Ser Ala Thr Ile Ala Leu Pro Ala
3877          530          535          540
3880 Asp Thr Thr Ile Gln Tyr Lys Tyr Val Asn Ile Asp Gly Ser Thr Val
3881 545          550          555          560
3884 Ile Trp Glu Asp Ala Ile Ser Asn Arg Glu Ile Thr Thr Pro Ala Ser
3885          565          570          575

```

RAW SEQUENCE LISTING

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PATENT APPLICATION: US/10/586,109

TIME: 14:15:51

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\07262006\J586109.raw

3888	Gly	Thr	Tyr	Thr	Glu	Lys	Asp	Thr	Trp	Asp	Glu	Ser
3889				580					585			
E--> 3895	(69)											

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 07/26/2006

PATENT APPLICATION: US/10/586,109

TIME: 14:15:52

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\07262006\J586109.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:11,32,33,34,35,36,37,38,39,40,41

VERIFICATION SUMMARY

DATE: 07/26/2006

PATENT APPLICATION: US/10/586,109

TIME: 14:15:52

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\07262006\J586109.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:144 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:348
L:273 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 1
L:3895 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:41